

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Kurt E. Spears et al Confirmation No.: 3181  
Application No.: 09/919008 Examiner: Luu, Thanh X  
Filing Date: Jul 31, 2001 Group Art Unit: 2878  
Title: Optical Image Scanner With Variable Focus (as Amended)

Mail Stop Appeal Brief-Patents  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on 03/10/2005.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

( ) (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

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( ) two months	\$450.00
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( ) four months	\$1590.00

( ) The extension fee has already been filled in this application.

(X) (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **08-2025** the sum of \$500.00. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Number of pages: 16

Typed Name: Donna M Kraft

Signature: Donna M Kraft

Respectfully submitted,

Kurt E. Spears et al

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Date: March 10, 2005

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UNITED STATES PATENT AND TRADEMARK OFFICE

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PATENT APPLICATION

ATTORNEY DOCKET NO. 10013070-1

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Kurt E. Spears & Steven L. Webb

Serial No.: 09/919,008

Examiner: Luu, Thanh X.

Filing Date: 07/31/01

Group Art Unit: 2878

Title: OPTICAL IMAGE SCANNER WITH VARIABLE FOCUS (as amended)

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria VA 22313-1450

**BRIEF ON APPEAL**

**INTRODUCTION**

Pursuant to the provisions of 37 CFR Part 41, Subpart B, applicants hereby appeal to the Board of Patent Appeals and Interferences (the "Board") from the examiner's final rejection dated 11/10/2004. A notice of appeal was timely filed concurrently with this brief on appeal on 03/10/2005, in accordance with 37 CFR § 41.31(a)(1).

**REAL PARTY IN INTEREST**

The entire interest in the present application has been assigned to Hewlett-Packard Development Company, L.P. as recorded at reel 014061, frame 0492.

**RELATED APPEALS AND INTERFERENCES**

An earlier appeal brief was filed on 03/09/2004. In response, an office action was sent on 05/03/2004, citing new art and new grounds for rejection.

### STATUS OF CLAIMS

Claims 3, 11 and 17-22 are pending in the application.

Claims 19-22 are withdrawn from consideration.

Claims 3, 11, 17, and 18 are rejected.

Claims 3, 11, 17, and 18 are on appeal.

### STATUS OF AMENDMENTS

There are no after-final amendments.

### SUMMARY OF CLAIMED SUBJECT MATTER

A scanner (figure 1) has an optical head (100) that includes lenses (106) and a photosensor array (108). The distance of the optical head or photosensor, relative to a surface of a platen (for example, surface 110), is variable (direction 122 in figure 1). As a result, the primary focal point for the lenses can be moved relative to a surface of the platen.

In the example embodiment illustrated in figures 2A-2C, the distance of the photosensor array (108), relative to a surface of the platen (for example, surface 100), depends on the direction of travel of the optical head (the optical head tilts when moving as in figure 2B). See the discussion of figures 2A-2C at page 5, line 25, through page 6, line 25. In the example embodiments of figures 3A-3C, and 4A-4C, the displacement of the optical head 100 (and the photosensor array 108 within the optical head) relative to a surface of the platen (for example, surface 110), depends on the direction of travel (pivoting pads pivot to different rotational positions depending on direction of travel). For example, in figure 3A, the optical head is closer to surface 110 when motion is to the right (arrow 124) than when motion is to the left (arrow 126). See the discussion of figures 3A-3C on page 7, lines 3-16, and the discussion of figures 4A-4C on page 7, line 17, to page 8, line 4.

Claim 3 specifies a platen (figures 3A and 4A, 110); an optical head (figures 3A and 4A, 100); pads (figure 3A, 300; figure 4A, 400) positioned between the optical head and the platen, the pads pivoting around a pivot point (figures 3A, 3B, 3C, 302; figures 4A, 4B, 4C, 402), where for a first direction of travel (figure 3A, 124) of the optical head the pads pivot to a first position (figures 3B and 4B), and for a second direction of travel (figure 3A, 126) of the optical head the pads pivot to a second position (figures 3C and 4C), and where the distance between the platen and the optical head is different for the first and second positions of the pads (see page 7, lines 9-16, and lines 26-27).

Claim 11 specifies translating an optical head (figures 3A and 4A, 100) in a direction substantially parallel to a platen (figures 3A and 4A, 110), and; pivoting a pad (figure 3A, 300; figure 4A, 400), between the optical head and the platen, as a result of translating the optical head, where the distance between the optical head and the platen is a function of a direction of pivoting of the pad (figures 3B and 3C, or 4B and 4C) (see page 7, line 3, to page 8, line 4).

Claim 17 specifies a photosensor array (figures 2A, 3A, 4A, 108); a platen (figures 2A, 3A, 4A, 110); and means for intentionally changing a distance of the photosensor array relative to a surface of the platen, dependent on a direction of translation of the photosensor array (figure 2A vs. figure 2B; figure 3B vs. figure 3C; figure 4B vs. figure 4C) (see page 5, line 25, to page 8, line 4).

Claim 18 specifies a platen (figures 3A, 4A, 110), a photosensor array (figures 3A, 4A, 108), the photosensor array being translated substantially parallel to the platen (for example, figures 3A-3C, and figures 4A-4C), where a first direction of translation causes the photosensor array to be displaced from the platen a first distance, and where a second direction of translation causes the photosensor array to be displaced from the platen a different distance (in figures 3A-3C, friction during translation causes the pivoting pads to rotate to a stop position, and in figures 4A-4C, cable tension causes the pivoting pads to rotate to a stop position) (see page 7, line 3, to page 8, line 4).

#### **GROUND'S OF REJECTION TO BE REVIEWED ON APPEAL**

1. Whether claim 3 complies with 35 U.S.C. § 112, first paragraph.

2.. Whether claim 11 is unpatentable under 35 U.S.C. § 102 as anticipated by Japanese publication number 07-327109 (Ito)

3. Whether claim 17 is unpatentable under 35 U.S.C. § 102 as anticipated by Japanese publication number 11-341219 (Takahashi).

4. Whether claims 17 and 18 are unpatentable under 35 U.S.C. § 102 as anticipated by Japanese publication number 63-222573 (Yasuoka *et al.*)

### ARGUMENT

#### CLAIM 18

Claim 18 specifies a platen; a photosensor array, the photosensor array being translated substantially parallel to the platen, where a first direction of translation causes the photosensor array to be displaced from the platen a first distance, and where a second direction of translation causes the photosensor array to be displaced from the platen a different distance. where the difference in distance is predefined.

Yasuoka *et al.* do not teach or suggest a the photosensor array being translated substantially parallel to the platen, where a first direction of translation causes the photosensor array to be displaced from the platen a first distance, and where a second direction of translation causes the photosensor array to be displaced from the platen a different distance, where the difference in distance is predefined.

For the situation in which the object being scanned is not substantially parallel to the platen (for example, the spine of a book), Yasuoka *et al.* do not teach or suggest a photosensor array translated substantially parallel to the platen. If the object being imaged has a profile that is not parallel to the platen, then the photosensor array follows the profile, which is not substantially parallel to the platen. For the situation in which the object being scanned is substantially parallel to the platen, then Yasuoka *et al.* do not teach or suggest that the distance between the photosensor array and the platen is different depending on direction of translation.

The examiner, at page 4, gives the example of the book. However, in the examiner's example, the photosensor array is not translated substantially parallel to the platen.

#### CLAIM 11

Claim 11 specifies translating an optical head in a direction substantially parallel to a platen; and pivoting a pad, between the optical head and the platen, as a result of translating the optical head, where the distance between the optical head and the platen is a function of a direction of pivoting of the pad.

Ito does not teach or suggest that the distance between the optical head and the platen is a function of a direction of pivoting of the pad. Ito expressly teaches just the opposite. From the English abstract: ". . . the focus is made constant with respect to the original platen glass 1 by the roller 3."

The examiner, page 5, citing Ito in the final office action for the first time, states in essence that in Ito, a constant distance is a "function" of a direction of rotation of the pad.

From the Merriam-Webster Online Dictionary, for the word "function", definition 5b is as follows: "a variable (as a quality, trait, or measurement) that depends on and varies with another <height is a *function* of age> "

Ito does not teach or suggest a variable distance that varies with direction of rotation of a pad.

#### CLAIM 17 IN LIGHT OF TAKAHASHI

Claim 17 specifies a photosensor array; a platen; and means for intentionally changing a distance of the photosensor array relative to a surface of the platen, dependent on a direction of translation of the photosensor array.

Takahashi does not teach or suggest intentionally changing the distance of the photosensor array relative to a surface of the platen, dependent on a direction of translation of the photosensor array.

Takahashi, in figure 14, discloses an optical head that can pivot, and an adjustable pad. Applicant stipulates that there may be some slight inherent difference in pivoting as a result of direction of translation. However, claim 17 specifies that the difference is intentional.

The examiner, at pages 3 and 4, asserts that since Takahashi intentionally moves the carriage, then any change in the distance between the photosensor array and the platen must also be intentional. Applicant submits that there is no teaching or suggestion in Takahashi that Takahashi intends for the distance between the photosensor array and the platen to change.

#### CLAIM 17 IN LIGHT OF YASUOKA *ET AL.*

Claim 17 specifies a photosensor array; a platen; and means for intentionally changing a distance of the photosensor array relative to a surface of the platen, dependent on a direction of translation of the photosensor array.

Yasuoka *et al.* do not teach or suggest changing a distance of a photosensor array relative to a surface of a platen, dependent on a direction of translation of the photosensor array.

Yasuoka *et al.* disclose a photosensor array 4 that can be moved relative to a platen using piezoelectric elements 6. If an object being imaged is displaced from the platen, the photosensor array can be moved closer to the platen. However, Yasuoka *et al.* do not teach or suggest that the distance is dependent on a direction of translation of the photosensor array. If the photosensor array is to be focused, for example, on the surface of a book, the focal distance is the same regardless of the direction of translation.

The examiner, page 4, characterizes element 6 of Yasuoka *et al.* as both a means for changing the distance of the photosensor array relative to the platen, and a means for translation of the photosensor array. That is, the examiner characterizes movement of the photosensor array towards and away from the platen as "translation". From MPEP 2106: "Where an explicit definition is provided by the applicant for a term, that definition will control interpretation of the term as it is used in the claim. *Toro Co. v. White Consolidated Industries Inc.*, 199 F.3d 1295, 1301, 53 USPQ2d 1065, 1069 (Fed. Cir. 1999)." From



MPEP 2111: "During patent examination, the pending claims must be "given \* > their < broadest reasonable interpretation consistent with the specification." *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000)." In addition, from MPEP 2111: "Rather, the "PTO applies to verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise they may be afforded by the written description contained in applicant's specification.""

Applicant submits that characterizing movement of the photosensor array towards and away from the platen as "translation" is inconsistent with the specification (for example, page 5, lines 6-8).

### CLAIM 3

Claim 3 specifies pads positioned between the optical head and the platen, the pads pivoting around "a pivot point". Figure 3A illustrates a plurality of pads 300 pivoting around pivot points 302. From page 7, lines 3-4: "Figure 3A illustrates an alternative embodiment, using pivoting pads. In figure 3A, two pads 300 are attached to the optical head at pivot points 302." Figure 4A illustrates pads 400 pivoting around pivot points 402. From page 7, lines 21-22: "In figure 4A, pads 400 are attached to the optical head at pivot points 402."

The examiner, page 3, asserts: "In the embodiments of Figs. 3 and 4, the pads do not pivot around "a pivot point." This was a new rejection, and applicant has not had an opportunity in a non-final rejection to respond. The applicant is willing to grant the examiner permission to make an examiner's amendment to claim 3 to specify "each pad pivoting around a pivot point".

Claim 3 further specifies that the distance between the platen and the optical head is different for the first and second positions of the pads. The examiner further asserts that the distance between the platen and the optical head is the same. However, the examiner bases the assertion on figure 2A, not figures 3A and 4A. With an amendment as suggested above, it is clear that distance varies as illustrated in figures 3B and 3C, and 4B and 4C.

### CONCLUSION

In view of the above, applicant respectfully requests that the examiner's rejection of claims 3, 11, 17, and 22 be reversed.

Respectfully submitted,



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March 10, 2005

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## APPENDIX

### CLAIMS ON APPEAL

3. A scanner, comprising:

a platen;

an optical head;

pads positioned between the optical head and the platen, the pads pivoting around a pivot point, where for a first direction of travel of the optical head the pads pivot to a first position, and for a second direction of travel of the optical head the pads pivot to a second position, and where the distance between the platen and the optical head is different for the first and second positions of the pads.

11. A method, comprising:

translating an optical head in a direction substantially parallel to a platen, and;

pivoting a pad, between the optical head and the platen, as a result of translating the optical head, where the distance between the optical head and the platen is a function of a direction of pivoting of the pad.

17. A scanner comprising:

a photosensor array;

a platen; and

means for intentionally changing a distance of the photosensor array relative to a surface of the platen, dependent on a direction of translation of the photosensor array.

18. A scanner comprising:

a platen;

a photosensor array, the photosensor array being translated substantially parallel to the platen, where a first direction of translation causes the photosensor array to be displaced from the platen a first distance, and where a second direction of translation causes the photosensor array to be displaced from the platen a different distance, where the difference in distance is predefined.